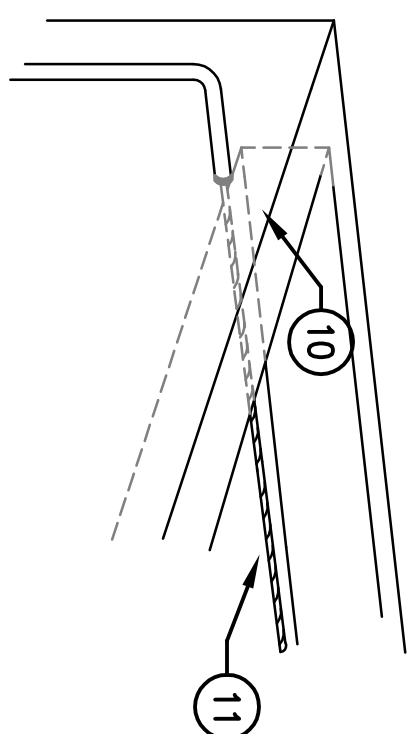


NOTES:

1. PROVIDE A UL MASTER LABEL LIGHTNING PROTECTION SYSTEM PER ELECTRICAL SPECIFICATIONS.
2. LIGHTNING PROTECTION SYSTEM GROUND DOWN CONDUCTORS TO BE CONNECTED TO GROUND LOOP VIA - BI-METAL ELEMENT.

## 1 Building Ground Loop Detail - Research Office Building, 30

SCALE: 1/8"=1'-0"



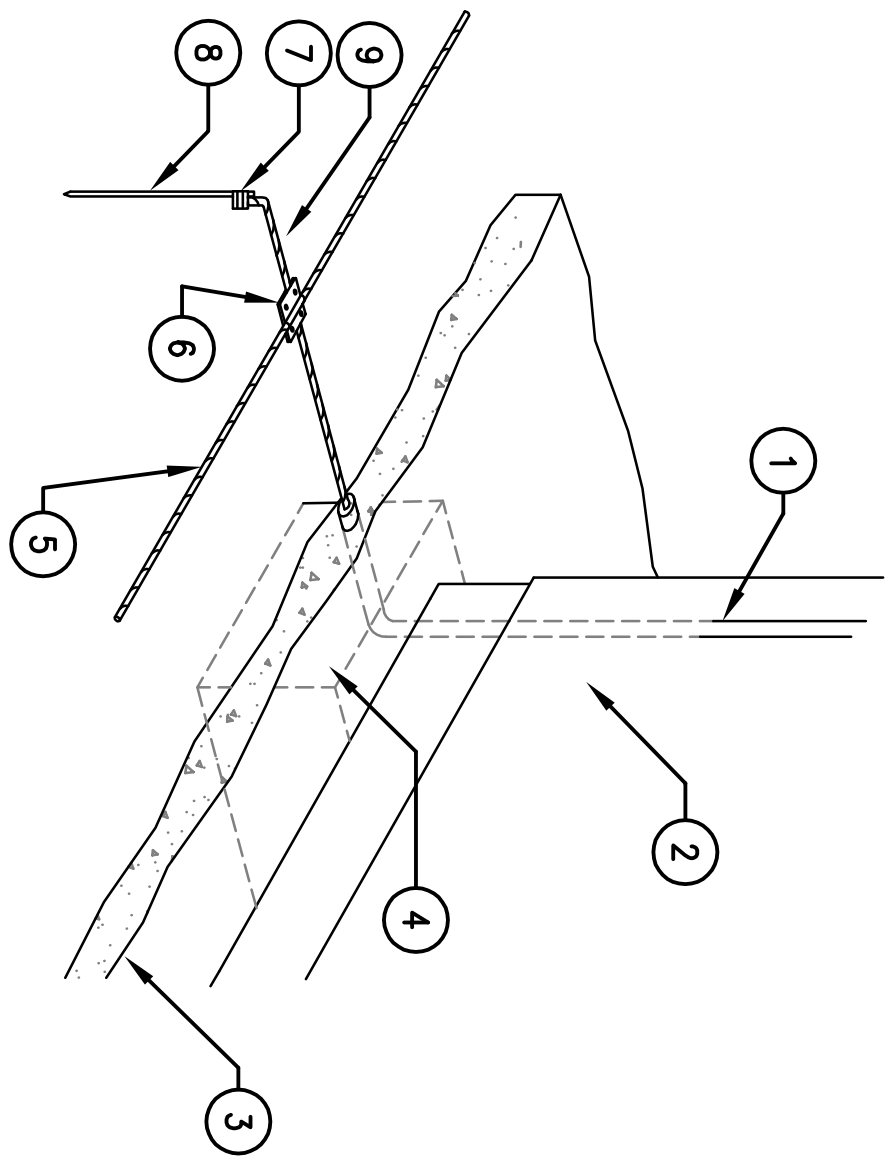
- 1 DOWN CONDUCTOR IN 1 INCH PVC CONDUIT (SCH. 40) WEATHERPROOFED AND MAINTAINED FREE FROM OBSTRUCTIONS (ALL PVC CONDUIT SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR)
- 2 COLUMN OR WALL OR CHASE, MUST BE CONCEALED FROM VIEW
- 3 FINISHED GRADE
- 4 COLUMN FOOTING
- 5 GROUND LOOP CONDUCTOR
- 6 CADWELD CROSSOVER CABLE CONNECTOR
- 7 GROUND ROD CONNECTION. (EXOTHERMIC CONNECTION)
- 8 GROUND ROD (5/8" x 10'-0" STAINLESS STEEL, GROUND ROD)
- 9 #2 SOLID TINNED COPPER GROUND LOOP CONDUCTOR
- 10 SEAL PVC CONDUIT WITH SILICONE SEALANT TO PREVENT INGRESS OF WATER
- 11 COPPER DOWN CONDUCTOR WITH DRIP LOOP

NOTES:

1. PROVIDE BONDING STRAP TO WATERLINE (FIRE AND DOMESTIC) AND CONNECT ALUMINUM CABLE TO NEAREST DOWN CONDUCTOR. GROUND ROD OR STRUCTURAL STEEL FRAMEWORK.
2. AT EACH DOWN CONDUCTOR LOCATION PROVIDE BONDING CONNECTOR TO STRUCTURAL STEEL OR REBAR AND CONNECT ALUMINUM CABLE TO NEAREST DOWN CONDUCTOR OR GROUND ROD.
3. DO NOT PENETRATE ROOF FOR LIGHTNING PROTECTION SYSTEM. COORDINATE WITH ARCHITECT ON EXACT ROUTING OF PVC CONDUIT AND CONDUCTOR.

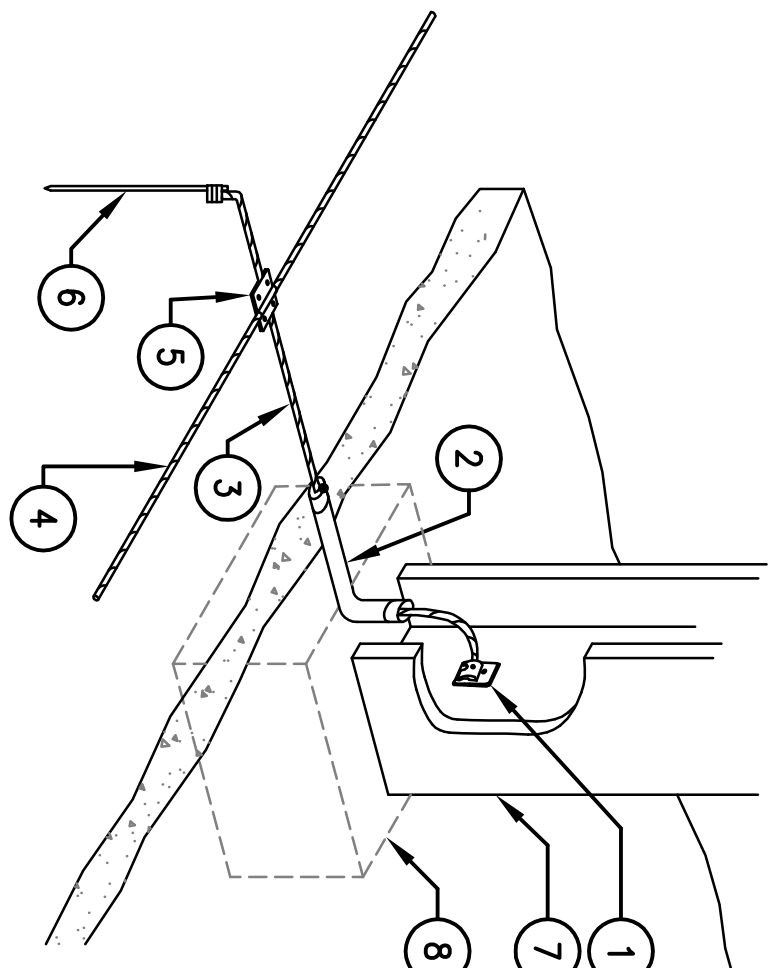
## 5 Connection To Ground Loop

SCALE: NTS

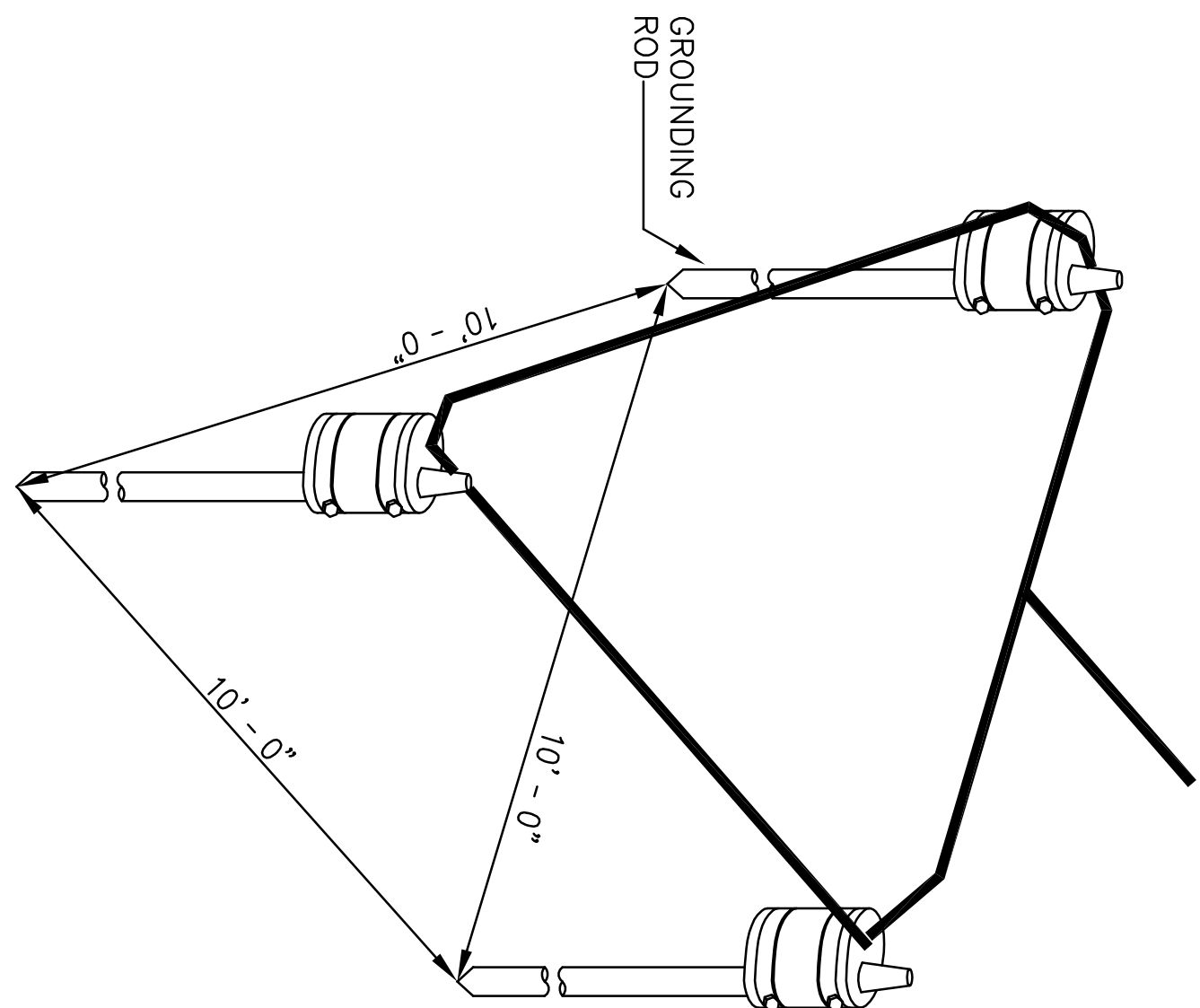


## 6 Interior Ground Grid Connection

SCALE: NTS



- 1 BONDING PLATE TO STEEL COLUMN
- 2 1" PVC SLEEVE (FURNISHED & INSTALLED BY THE ELEC. CONTR.)
- 3 GROUNDING CONDUCTOR
- 4 BLDG. GROUNDING GROUND GRID CONDUCTOR
- 5 CADWELD CROSSOVER CABLE CONNECTOR
- 6 3/4" x 10'-0" COPPERWELD GROUND ROD W/ GROUND ROD CONN.
- 7 STEEL COLUMN (INTERIOR COLUMN)
- 8 COLUMN FOOTING

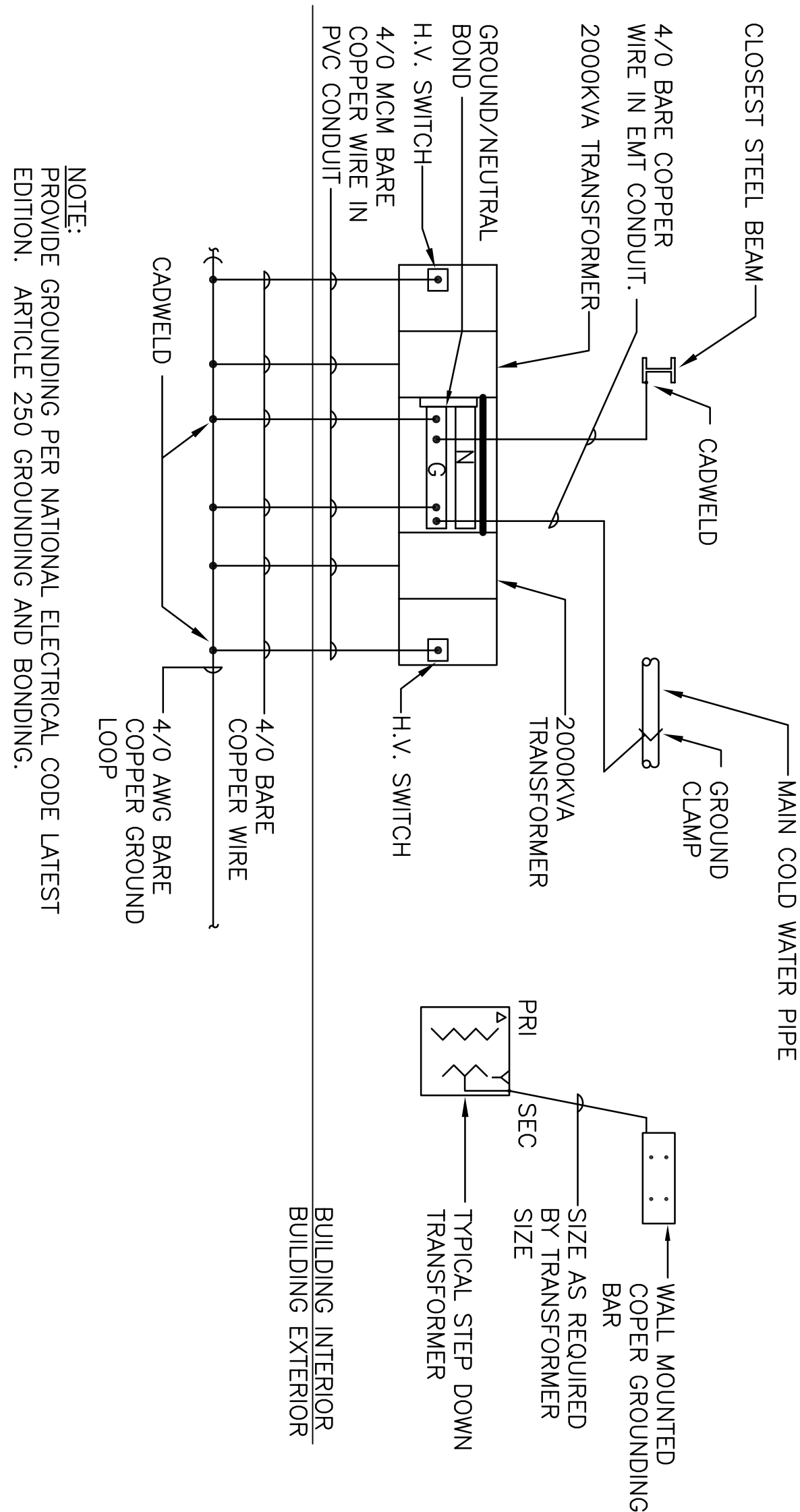


## 2 Triangular Ground Grid

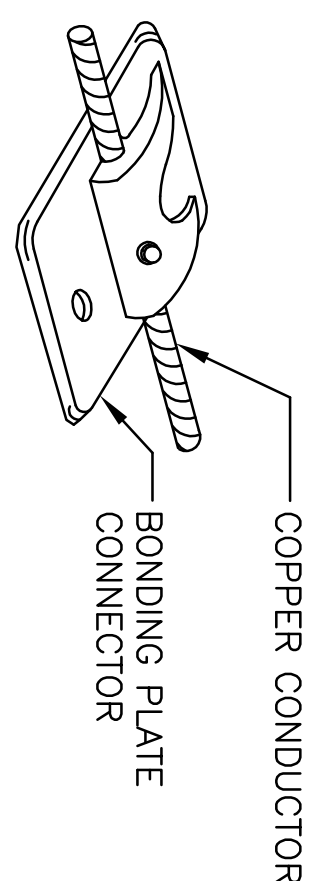
SCALE: NTS

## 3 Grounding Riser

SCALE: NTS

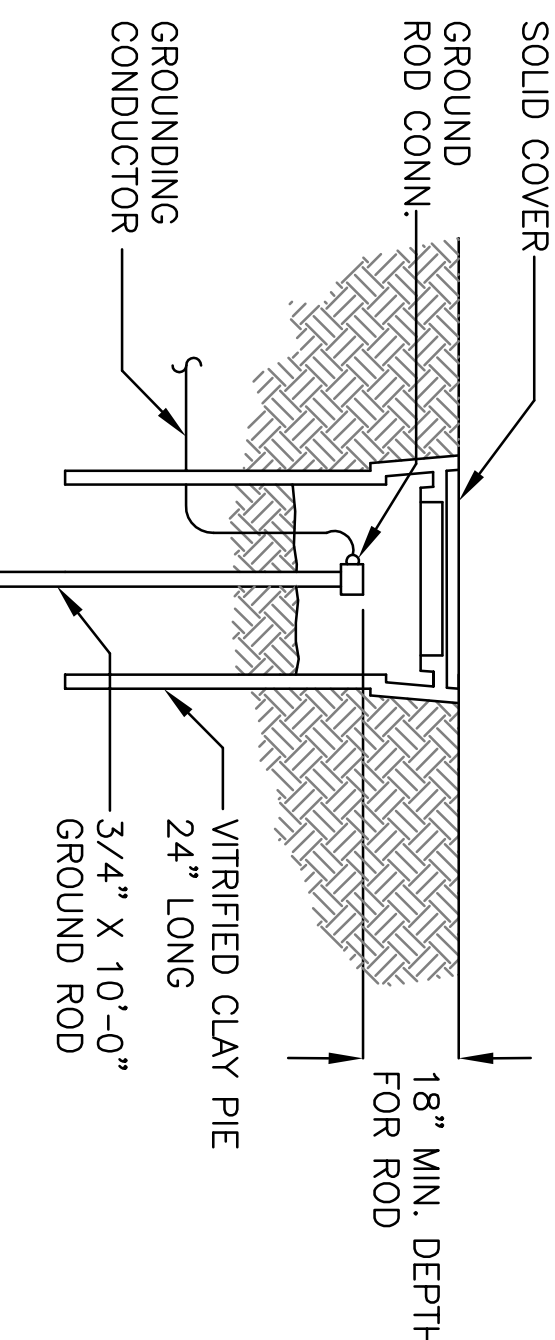


NOTE: PROVIDE GROUNDING PER NATIONAL ELECTRICAL CODE LATEST EDITION, ARTICLE 250 GROUNDING AND BONDING.



## 4 Equipment Bonding Plate Connection

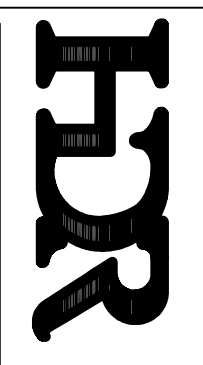

SCALE: NTS



## 7 Inspection Test Well

SCALE: NTS

FOR CONSTRUCTION  
FULLY SPRINKLERED

<b>CONSULTANTS:</b>		<b>ARCHITECT/ENGINEERS:</b>	
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<b>Revisions:</b>		<b>Drawing Title</b>	
		<b>Grounding Loop Plan &amp; Details</b>	
		<b>Project Title</b>	
		<b>VA CARES CONSOLIDATION VAMC, PITTSBURGH, PA RESEARCH OFFICE BLDG.</b>	
		<b>Location</b>	
		<b>VAPHS UNIVERSITY DRIVE</b>	
		<b>Project Number</b>	
		<b>646CA2500R</b>	
		<b>Building Number</b>	
		<b>30</b>	
		<b>Drawing Number</b>	
		<b>EP3-101</b>	
		<b>Office of Facilities Management</b>	
		<b>Department of Veterans Affairs</b>	
<b>Date</b>		<b>Date</b>	
08-18-10		08-18-10	
<b>Drawn</b>		<b>Drawn</b>	
LLG		LLG	
<b>Checked</b>		<b>Checked</b>	
TMR		TMR	
<b>Approved: Project Director</b>		<b>Approved: Project Director</b>	
<b>VA FORM 08-6231, OCT 1978</b>			